



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/350,436	07/09/1999	CHANG-RAE JEONG	P992004	8102
33942	7590	03/19/2004	EXAMINER	
CHA & REITER, LLC 210 ROUTE 4 EAST STE 103 PARAMUS, NJ 07652			WANG, TED M	
			ART UNIT	PAPER NUMBER
			2634	
DATE MAILED: 03/19/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/350,436	JEONG, CHANG-RAE	
	Examiner	Art Unit	
	Ted M Wang	2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 09 July 1999.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-11 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-11 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_

## DETAILED ACTION

1. Claims 1-11 are pending in the application.

### *Specification*

2. The disclosure is objected to because of the following informalities:

- Page 9 line 7, "frame sync signal FSx," should be deleted.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by

Takahashi (PT4,661,946).

- In regard claim 1, Takahashi discloses a digital switch module having encoding law conversion capability for converting pulse code modulation (PCM) signals (column 1 lines 45-63, and column 3 lines 56-65) from either one of two different modulation standards to the other one of said two different modulation standards in a system characterized by having a plurality of communication channels with each channel having a plurality of input digital signals modulated by said one of

said two different modulation standards (column 1 lines 45-55, and Fig.2) that comprise:

a channel selector for generating a channel select signal for identifying said at least one channel of the multiple channels in said system (Fig.2 element 20), and at least one codec means for selectively converting said identified input digital signals received in said at least one channel from said one of said two different modulation standards to the other one of said two different modulation standards in response to said channel select signal (Fig. 1-4 elements 24 and 29, and column 2 line 62 – column 3 line 40).

a plurality of mixers or buffer or memory (Fig. 1-4 elements 24 and 29) for selectively releasing and transmitting said input digital signal modulated by said one of said two different modulation standards and said converted input digital signal to the other one of said two different modulation standards by said codec means in response to said channel select signal (Fig. 1-4 elements 24 and 29, and column 2 line 62 – column 3 line 40, column 3 line 41 – column 5 line 51, and column 6 lines 1-46).

- In regard claim 2, the limitation is a conventional approaching that converting from one encoding law to the other is performed by converting the input data signal from the first encoding law to an analog signal and then re-encoding the analog signal according to the second encoding law. This process has difficulties not found in an all-digital system and typically requires more expensive equipment than an all digital system. Therefore, it would be preferable to convert

data signals from one encoding law to another without conversion to an analog signal. Further refer to Takahashi in column 1 lines 35-44.

- In regard claim 3, the limitation of a first buffer for receiving said converted input digital signal by said other one of said two different modulation standards from said codec means, and a second buffer sharing an output terminal with said first buffer for receiving said input digital signal modulated by said one of said two different modulation standards can further be taught in Fig. 3 elements 24 and 29, Fig.4 elements 24, 41, and 42, and column 41 – column 5 line 51, and column 6 lines1-46.
- In regard claim 4, the limitation that channel select signal is generated in response to a frame sync signal, a clock signal, and a read address controlled by said clock signal for reading an output data or in response to each time slot can further be taught in Fig. 2 elements 20-31, and Fig.3 elements 24,29, 32-34, and 241, and column 2 lines 3-25, column 3 line 1 – column 5 line 51, and claim 6.
- In regard claim 5, all limitation can further be taught in Fig. 2 elements 20-31, and Fig.3 elements 24,29, 32-34, and 241, and column 2 lines 3-25, column 3 line 1 – column 5 line 51, and claim 6.
- In regard claim 6, all limitation is contained in claim 1 and 2. The explanation of all the limitation is already addressed in the above paragraph.
- In regard claim 7-9, all limitation is contained in claim 3. The explanation of all the limitation is already addressed in the above paragraph.

- In regard claim 10, all limitation is contained in claim 4. The explanation of all the limitation is already addressed in the above paragraph.
- In regard claim 11, all limitation is contained in claim 5. The explanation of all the limitation is already addressed in the above paragraph.

***Conclusion***

5. Reference 5,887,027, 5,652,782, and 3,825,924 are cited because they are put pertinent to the Pulse Code Modulation Code Conversion. However, none of references teach detailed connection as recited in claim.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted M Wang whose telephone number is (703) 305-0373. The examiner can normally be reached on 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Chin can be reached on (703) 305-4714. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

Ted M Wang  
Examiner  
Art Unit 2634

Ted M. Wang



STEPHEN CHIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

Application/Control Number: 09/350,436  
Art Unit: 2634

Page 6